CLAIMS

WHAT IS CLAIMED IS:

1. A method of georeferencing a raster map, comprising:

providing for display a first map and a second map, the first map being a digital raster map, and the second map being a previously georeferenced map;

the fist map being substantially similar to the second map when displayed;

receiving an entry identifying a first point pair point on the first map;

receiving an entry identifying a second point pair point on the second map, the second point pair point having approximately the same location on the second map as the first point pair point has on the first map;

assigning a point pair point on the first map a longitude coordinate and a latitude coordinate, the longitude coordinate and the latitude coordinate of the first point pair point being identical to a longitude point and a latitude point associated with a point pair point on the second map.

2. The method of claim 1 wherein the second map is a vector map.

3. The method of claim 1 wherein the second map is a digital raster map.

4. The method of claim 1 wherein the point pair point on the first map has a previously determined longitude and latitude.

5. The method of claim 1 further comprising creating a georeferencing function.

6. The method of claim 5 wherein the georeferencing function is a linear transformation.

7. The method of claim 1 further comprising selectively synchronizing, responsive to a user command, the first map and the second map.

8. The method of claim 1 further comprising receiving a mark on the first map at a location, and reproducing the mark on the second map at a corresponding location.

9. The method of claim 5 wherein georeferencing uses at least three point pairs to complete the georeferencing function for the first map based on a linear transformation.

10. The method of claim 5 further comprising using at least four point pairs to complete the georeferencing function for the first map, based on a linear transformation, and further comprising executing a validation check.

11. The method of claim 10 further comprising rejecting a point pair when the point pair deviates a pre-determined amount from a pre-determined standard error.

12. The method of claim 11 wherein the predetermined standard error uses a "least square" parameter fitting operation.

13. The method of claim 1 further comprising :
receiving a selection of a point pair on the first map, and
receiving a selection of a point pair on the second map.

14. A method in a computer system for georeferencing a raster map, the method capable of transforming the computer system into a specific processing machine, by:

providing for display a first map and a second map, the first map being a digital raster map, and the second map being a previously georeferenced map;

the fist map being substantially similar to the second map when displayed;

receiving an entry identifying a first point pair point on the first map;

receiving an entry identifying a second point pair point on the second map, the second point pair point having approximately the same location on the second map as the first point pair point has on the first map;

assigning a point pair point on the first map a longitude coordinate and a latitude coordinate, the longitude coordinate and the latitude coordinate of the first point pair point being identical to a longitude point and a latitude point associated with a point pair point on the second map.

15. The method of claim 14 further comprising creating the georeferencing function.

16. The method of claim 14 further comprising receiving a mark on the first map at a location, and reproducing the mark on the second map at a corresponding location.

17. The method of claim 14 further comprising using at least four point pairs to compute a georeferencing function for the first map based on a linear transformation, and further comprising executing a validation check.

18. The method of claim 17 further comprising rejecting a point pair when the point pair deviates a predetermined amount from a predetermined standard error.

19. A computer readable medium whose contents enable the georeferencing of a raster map, by:

providing for display a first map and a second map, the first map being a digital raster map, and the second map being a previously georeferenced map;

the fist map being substantially similar to the second map when displayed;

receiving an entry identifying a first point pair point on the first map;

receiving an entry identifying a second point pair point on the second map, the second point pair point having approximately the same location on the second map as the first point pair point has on the first map;

assigning a point pair point on the first map a longitude coordinate and a latitude coordinate, the longitude coordinate and the latitude coordinate of the first point pair point being identical to a longitude point and a latitude point associated with a point pair point on the second map.

20. The method of claim 19 further comprising:

using at least four point pairs to compute a georeferencing function for the first map based on a linear transformation;

further comprising executing a validation check; and

rejecting a point pair when the point pair deviates a predetermined amount from a predetermined standard error.